DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 03/05/08 have been fully considered but they are not persuasive.

Applicant argues that Lakritz does not teach receiving a back-end model output from the back-end analytical engine, the back-end model output including information generated in response to the execution of the data mining model based upon the input data of the task request (Amendment, pages 7 – 10).

The examiner disagrees, Lakritz teaches "WebPlexer's multilingual toolkit uses a template-based approach to dynamically create documents tailored for a specific language or country. This information is dynamically inserted from a TermDB, another template or document. File-based templates allow external files containing localized content such as country, regional, or language-specific information to be inserted dynamically into a document" (page 44, lines 5 – 12; page 45, lines 30 - 34). Using a template-based approach to dynamically creating documents tailored for a specific language country implies receiving a back-end model output from the back-end analytical engine based upon the input data of a front-end task request, since the WebPlexer's multilingual toolkit uses dynamic file-based templates.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 10, 12, 15 – 20, 24 - 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Lakritz (Wo 01/69420).

As per claim 10, Lakritz teaches a computer-implemented method for outputting textual descriptions of data fields in a data mining model in a selected language, the method comprising:

receiving an extension document corresponding to a data mining model, the model including a unique identifier associated with a textual description of a data field in the data mining model; storing contents of the extension document in a database ("content from the database"), the contents of the extension document having first and second entries associated with the unique identifier ("tag-based templates allow a single document to be used across all languages"), the first entry including the textual description of the data field in a first language, and the second entry including the textual description of the data field in a second language("a single document can be constructed so that it will automatically localized for different languages and locales"; page 10, lines 4 – 6, and 31 – 37; page 44, lines 4 – 30; page 45, lines 15, and 16; content from the database"; Abstract, lines 7, and 8);

receiving a task request from a front-end application, the task request including input data for use with the data mining models (Abstract, lines 6 – 9);

in response to the task request from the front-end application, invoking a back-end analytical engine to execute the data mining model based upon the input data of the task request; receiving a back-end model output from the back-end analytical engine, the back-end model output including information generated in response to the execution of the data mining model based upon the input data of the task request (" Webplexer's Multilingual Toolkit uses a template-based approach to dynamically create documents tailored for a specific language or country…this information is dynamically inserted from a termDB, another template")"; page 6, lines 27 – 33; Abstract, lines 6 – 9; page 44, lines 5 – 12);

inserting the first entry from the contents of the extension document into the back-end model output to produce an updated model output ("visitor module greatly enhances the multilingual web site visitor's experience… dynamically inserted from a termDB, another template"; page 5, lines 17 – 26; page 44, lines 5 – 12, page 43, lines 15 - 18); and

outputting to the front-end application the updated model output that includes the first entry from the contents of the extension document such that the textual description of the data field is output in the first language ("the requested document is automatically served in the visitor's language"; Abstract, lines 6 – 8; page 44, lines 25, and 26).

As per claim 17, Lakritz teaches a computer-implemented method for providing multi-language support for data mining models, the method comprising:

receiving an extension document (website visitor suggests receiving an input information) having first and second entries associated with a unique identifier ("tag-based templates allow a single document to be used across all languages") in a textual description field of a data mining model ("template model"), the first entry including textual information in a first language, and the second entry including textual information in a second language ("a single document can be constructed so that it will automatically localized for different languages and locales"; page 10, lines 4 – 6, and 31 – 37; page 44, lines 4 – 30; page 45, lines 15, and 16) ;

processing a request from a front-end application to execute an analytical task associated with the data mining model, the request from the front-end application including input data that is employed by a back-end analytical engine to execute the data mining model to generate a back-end model output, the back-end model output including the unique identifier ("Webplexer's Multilingual Toolkit uses a template-based approach to dynamically create documents tailored for a specific language or country…this information is dynamically inserted from a termDB, another template"; page 6, lines 27 – 33; Abstract, lines 6 – 9; page 44, lines 5 – 12); and

in response to receiving the back-end model output from the back-end analytical engine, outputting to the front-end application an updated model output that includes the first entry such that the textual information is output in the first language (" the requested document is automatically served in the visitor's language"; Abstract, lines 6 – 8; page 44, lines 25, and 26).

As per claim 18, Lakritz further discloses that the extension document is received from the back-end analytical system ("visitor module greatly enhances the multilingual web site visitor's experience"; page 5, lines 17 – 26).

As per claim 19, Lakritz further discloses storing contents of the extension document in a database, the contents including the first and second entries ("content from the database"; Abstract, lines 7, and 8).

As per claims 16, and 24, Lakritz further discloses that the first language is English and the second language is German (page 82, lines 11 – 20; page 40, lines 1 – 5).

As per claims 15, and 25, Lakritz further discloses substituting the first entry of the extension document for the unique identifier such that the textual description of the data field is output in the first language ("enabling it to be replaced with its translation in the most recently valid language of the visitor"; col.8, lines 30 – 34).

As per claims 12, and 20, Lakritz further discloses determining from a login by the front-end application that the textual information should be output in the first language ("It automatically determines the language and country of a Web site visitor and directs the Web server to deliver the appropriate localized content contained in one or more country/language databases and/or file-based content in a file system to deliver

to the visitor's browser, wherein template model is used to dynamically create documents tailored for a specific language or country"; page 5, lines 24 - 28; page 44, lines 4 – 7).

As per claim 26, Lakritz further disclose that the data mining model includes rules and patterns derived from historical data that has been collected, synthesized and formatted ("pre-made rule sets and access pattern"; page 11, lines 25 – 28; page 78, line 2).

As per claim 27, Lakritz further disclose that the updated model output includes the output values for data fields originally determined by the back-end analytical engine and the textual description of those fields in the first language ("save the current value of the referrer URL in the http request"; page 38, lines 31, and 32; page 57, lines 15, and 16).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1 – 3, and 5 - 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakritz (WO 01/69420) in view of Shimamoto et al., (US 6,883,142), and further in view of Russakovsky et al., (US Patent 7,024,417).

As per claim 1, Lakritz teaches a computer-implemented method for providing multi-language support for data mining models, the method comprising:

receiving an extension document (website visitor suggests receiving an input information) having first and second entries associated with a unique identifier ("tag-based templates allow a single document to be used across all languages") in a textual description field of a data mining model ("template model"), the first entry including textual information in a first language, and the second entry including textual information in a second language ("a single document can be constructed so that it will automatically localized for different languages and locales"; page 10, lines 4 – 6, and 31 – 37; page 44, lines 4 – 30; page 45, lines 15, and 16) ;

processing a request from a front-end application to execute an analytical task associated with the data mining model ("automatically determines the language and country of the web site visitor and directs the web server to deliver the appropriate localized content"; Abstract, lines 1 - 3; page 3, lines 5 – 10), and

outputting to the front-end application an updated model output ("this information is dynamically inserted from a termDB, another template") that includes the first entry such that the textual information is output in the first language (" the requested document is automatically served in the visitor's language"; Abstract, lines 6 – 8; page 44, lines 25, and 26; page 44, lines 5 - 12).

However, Lakritz does not specifically teach determining from a login by the front-end application that the textual information should be output in the first language; a prediction engine that uses the data mining model; in response to the request from the

front-end application, invoking the prediction engine to execute the data mining model based upon input data of the request.

Shimamoto et al., teach automatically select the language appropriate for the user when the user logs into the system, generate the web page in that language, and provide the page to the user's web client (col.5, lines 5 – 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to automatically select the appropriate language of the user as taught by Simamoto et al., in Lakritz, so that is not necessary for a user to take the trouble of selecting a language each time the user accesses the web server 1 (col.7, lines 18 – 20).

Russakovsky et al., teach task for exporting mining models to and importing mining models from predictive model markup language (col.7, lines 26 – 31).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use predictive model markup language as taught by Russakovsky et al., in Lakritz in view of Shimamoto et al., because that would efficiently produce new previously unknown information (col.1, lines 2 4 – 26).

As per claim 2, Lakritz further discloses that the extension document is received from a back-end analytical system ("visitor module greatly enhances the multilingual web site visitor's experience"; page 5, lines 17 – 26).

As per claim 3, Lakritz further discloses storing contents of the extension document in a database, the contents including the first and second entries ("content from the database"; Abstract, lines 7, and 8).

As per claim 5, Russakovsky et al., further disclose that the request from the front-end application is a request for execution of a prediction task indicative of a likelihood that a customer will complete a purchase transaction ("exporting mining models to and importing mining models from predictive model markup language. To predict a value in the future, a value for xi may be plugged in, resulting in a predicted value for yi derived using a formula involving the coefficients"; col.7, lines 26 – 31, and 60 – 67).

As per claim 6, Russakovsky et al., further disclose invoking execution of the prediction task by a prediction engine using the data mining model, the request from the front-end application including input data indicative of customer information (col.7, lines 26 – 31, and 60 – 67).

As per claim 7, Russakovsky et al., further disclose that the data mining model and the extension document are PMML-compliant (col.7, lines 26 – 31).

As per claim 8, Russakovsky et al., further disclose that the data mining model includes a data field indicative of a predicted result of a particular transaction between

the front-end application and a customer ("mining objects such as models and results sets are usually stored in at the site of the original data source"; col.7, lines 16 – 18, and 26 – 28).

As per claim 9, Lakritz further discloses that the first language is English and the second language is German (page 82, lines 11 – 20; page 40, lines 1 – 5).

6. Claims 11, 13, 14, 21 -23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakritz (WO 01/69420) in view of Russakovsky et al., (US Patent 7,024,417).

As per claim 13, Lakritz does not specifically teach that the request from the front-end application is a request for execution of a prediction task.

Russakovsky et al., teach task for exporting mining models to and importing mining models from predictive model markup language (col.7, lines 26 – 31).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use predictive model markup language as taught by Russakovsky et al., in Lakritz because that would efficiently produce new previously unknown information (col.1, lines 2 4 – 26).

As per claims 11, 14, 21, and 22, Lakritz does not specifically teach that the data mining model and the extension document are PMML-compliant; invoking execution of the prediction task by a prediction engine using the data mining model.

Russakovsky et al., teach task for exporting mining models to and importing mining models from predictive model markup language (col.7, lines 26 – 31).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use predictive model markup language as taught by Russakovsky et al., in Lakritz because that would efficiently produce new previously unknown information (col.1, lines 2 4 – 26).

As per claim 23, Russakovsky et al., further disclose that the data mining model includes a data field indicative of a predicted result of a particular transaction between the front-end application and a customer ("mining objects such as models and results sets are usually stored in at the site of the original data source"; col.7, lines 16 – 18, and 26 – 28).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD SAINT CYR whose telephone number is (571) 272-4247. The examiner can normally be reached on Mon- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS
06/02/08

/Richemond Dorvil/

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